



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of )  
diGirolamo et al. )  
Serial No.: 10/058,958 )  
Filed: January 28, 2002 )  
For: Wall Structure )  
Attorney's Docket No: 4782-022 )

Patent Pending

Examiner: Yvonne M. Horton  
Group Art Unit: 3635

Raleigh, North Carolina  
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**DECLARATION OF ED DIGIROLAMO UNDER RULE 131**

I, Edward R. diGirolamo am an inventor of the Wall Structure that is disclosed and claimed in United States patent application serial number 10/058,958 filed January 28, 2002.

1. I have reviewed the claims that are pending in this application. I personally conceived the invention described in claims 1, 16 and 25 prior to May 2, 2000.

2. I conceived the invention described in these three claims on or about May 9, 1998. Attached hereto as Exhibit 1 are some notes and a sketch that show what I refer to as the "StiffWall." Attached as Exhibit 2 is a sketch taken from a napkin that I made on or about January 30, 1999. This sketch shows portions of the "StiffWall".

3. On March 15, 1999 we held a business meeting at my company, The Steel Network, Inc. During the course of this business meeting we discussed the "StiffWall" invention. I made some notes and sketches during the course of that business meeting. They are attached as Exhibit 3.

4. As of May 9, 1998 I had conceived the invention described in claims 1, 16 and 25 of the present application, serial number 10/058,958. Between May 9, 1998 and March 15,

1999 I continued to refine and work on the design of the "StiffWall" structure. Certainly prior to May 2, 2000 I had conceived of a wall structure that included a pair of opposed members and a plurality of studs that were spaced apart and connected between the opposed members. I also conceived of openings formed in the studs and of the provision of at least one diagonal brace extending through these openings in the studs.

5. Also during this time frame, May 9, 1998 to March 15, 1999 I conceived of a wall structure that included upper and lower members and a series of spaced apart studs connected between them. There would be openings provided in the studs, and there would be a diagonal brace extending through the openings in the studs and the openings within the studs were spaced such that the diagonal brace could extend between opposed corners of the wall structure. I also conceived, during this time, a pair of connectors connected to opposite ends of the brace and where the connectors connected to opposed corners of the wall structure. Further, in this design the connector was secured between one stud and either the upper or lower member.

6. In the rough sketch shown on Exhibit 1 one can see the lower member and one stud extending upwardly from the lower member plus a diagonal brace that would extend diagonally across the wall structure and through the openings in the stud.

7. In Exhibit 3, I show two types of diagonal braces. The first diagonal brace is a cable and it is pretensioned when inserted into the wall structure. Underneath the cable I show a bar or rod and one can see that I connect the bar to a connector that is in turn connected in the corner of the wall structure.

8. Between my conception of May 9, 1998 and the filing of this patent application which occurred on January 28, 2002, I, along with the co-inventors, pursued, in a diligent fashion, the reduction to practice of this wall design that I call the "StiffWall". Myself and the other co-inventors continued to work on a regular basis to refine the design and developed the

"StiffWall" invention to where it worked as intended, would be reliable, and could be manufactured at a price that would be accepted in the marketplace.

9. Sometime prior to November 15, 1999, one of my co-inventors, Mike Torres, contacted FUSA Tech, Inc. of Reston, Virginia seeking information on how we could panelize the "StiffWall". We received a letter dated November 5, 1999 containing a package from FUSA Tech, Inc. in response to our request. A copy of FUSA Tech, Inc.'s letter of November 5, 1999 is attached hereto as Exhibit 4.

10. During the year 2000 we continued to work on refining and designing the "StiffWall" invention. Sometime in the latter part of 2000 we sought quotes on material for manufacturing the "StiffWall". One of the vendors that we contacted was Dillon Supply Company of Raleigh, North Carolina. On or about October 11, 2000, Dillon Supply wrote back and gave us a quote on certain components that we intended to use in the "StiffWall" design. A copy of the Dillon Supply quote is attached as Exhibit 5. Also, about October 17, 2000 we received a quote from Apex Steel of Apex, North Carolina. They quoted us a price of \$1,658.56 to fabricate and deliver one frame per our sketch. This frame was to be used in conjunction with the construction of the "StiffWall". The proposal from Apex Steel forms a part of Exhibit 5.

11. On or about October 31, 2000 we ordered materials for a test stand for the "StiffWall". We ordered this from Dillon Supply Company. Attached as Exhibit 6 is an order submitted to Dillon Supply Company from Mike Torres and also Exhibit 6 shows a corresponding or related quote. A test stand was needed to receive and hold the "StiffWall" while the "StiffWall" was being tested.

12. Attached as Exhibit 7 is a material cut sheet along with fabrication sketches for the test stand that we working on in the latter part of 2000.

13. On or about November 21, 2000 we ordered additional material from Dillon Supply Company for the test stand. This is shown in Exhibit 8.

14. Attached as Exhibit 9 and dated December 7, 2000 is a specification certification on the "Stressproof" bar material that we were going to use in conjunction with building this test stand.

15. Exhibit 10 shows an equipment quote for welding components of the "StiffWall". This quote was given January 6, 2001.

16. Exhibit 11 is a series of sketches that I made of details of the "StiffWall" structure. These sketches are partly made on a letter dated February 21, 2001 from me to another person. The letter is irrelevant to the subject matter of this Declaration, but for some reason I made some of the hand sketches on March 2, 2001 on this letter. The sketches are dated March 2, 2001.

17. During the course of this work, we were considering using either a cable or a rigid bar through the openings of the studs. Exhibit 12, attached, is a sketch I made concerning the cable connections within the "StiffWall" structure. These sketches were made on March 6, 2001.

18. Exhibit 13 is a receipt for hardware that we purchased for the cable connections. This receipt was received on March 10, 2001.

19. Also, we intended to use rigid rods in the "StiffWall" structure. Exhibit 14 shows an order that we made on March 22, 2001 for some bars or rods.

20. Exhibit 15 is a rod detail fabrication drawing. This is dated March 26, 2001.

21. Exhibit 16 shows a rod sketch and a cable sketch that was a part of a discussion that I had on April 4, 2001 with some people at our company including one of the co-inventors, Mr. Mike Torres.

22. Exhibit 17 is a series of sketches that I believe I made between April 4, 2001 and April 17, 2001. These are sketches relating to the test stand and the design of the "StiffWall" that we were going to test.

23. Exhibit 18 is boot and post fabrication sketches for the test stand. I prepared these drawings on April 17, 2001.

24. Exhibit 19 depicts an e-mail from one of my co-inventors, Mike Torres, to Galvan Industries concerning a request for pricing on some galvanized bar stock that we intended to use in the "StiffWall". We received a quote back from Galvan Industries. The date of the e-mail of Exhibit 19 is May 4, 2001. Also, attached as Exhibit 20 is a quote from Galvan Industries, Inc. concerning the galvanized rods. This quote is dated May 4, 2001.

25. From about the early part of 2001 until August of 2001, we were busy refining the design and building a prototype "StiffWall" structure and a test stand for holding, supporting and testing the wall structure. I am sure that by August 7, 2001 we had built the first "StiffWall" structure and a test stand. Attached hereto as Exhibit 21 are copies of digital photographs showing the "StiffWall" structure and the test stand and they are dated August 7, 2001.

26. We ran our first test on the "StiffWall" structure on August 16, 2001. The test showed that the "StiffWall" structure performed very well and that it was a practical, workable and, in our judgment, a marketable design.

27. After August 2001 we continued to refine and test the "StiffWall" structure. Sometime after August we built a second test stand to test only a portion of the "StiffWall" structure. I believe that we had completed the final testing of this design by the end of December 2001.

28. Thereafter, we filed our patent application in January 2002.

29. The design of the "StiffWall" structure shown in the photograph of Exhibit 21 which were taken August 7, 2001 include the very same structure that is defined in the claims of this patent application and particularly shows the same wall structure that is described in claims 1, 16 and 25 and conforms in design and function to the original invention that I conceived in May 1998.

30. Under penalty of perjury I declare that the following is true to the best of my knowledge and belief.

Date: 24 JULY 2003



Edward R. diGirolamo